

XI.—*Descriptions of new Marine Mollusca from the Indian Ocean.*

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(With Plates VII and VIII.)

The types of the new species of shells described in this paper mostly belong to the family *Pleurotomidæ*, and are all in the collection of the Indian Museum.

MUREX (OCINEBRA) GIBBA, Pse.

*Latirus gibbus*, Pease, Am. J. Conch., 1867, (*Sandwich I.*)

*Murex Crosseana*, Lién., J. de Conch., 1874, (*Mauritius*).

We have found this shell at Ceylon, the Seychelle, and Andaman Islands; it is nowhere a common shell.

MUREX (OCINEBRA) FISCELLUM, Ch. var.

Chemn., Conch. Cab., fig. 1524-5, (*Pulo Condor*).

*M. Liénardi*, Crosse, J. de Conch., 1868, (*Mauritius*).

We have found both the type form and the var. *Liénardi* at Mauritius, also at Ceylon and Aden the above var. only; a large series of specimens in all stages of growth show that the two forms cannot be retained as distinct species.—The very common *Sistrum undatum* (Ch., fig. 1851-2, Tranquebar) must not be confused with the above, as well pointed out by Chemnitz in his original description, as also by v. Martens (Vorderasiat. Conch., p. 95); we have found the typical form of *S. undatum*, with whitish aperture, at Ceylon, Mauritius, and Natal; var. *Indica*, nobis, (de Blainv. pl. X, fig. 8) at Ceylon, Mauritius, Singapore, Bombay, Andamans, Penang, Arakan, Bourbon, and Seychelles; var. *subturrita* (de Blainv. pl. X, fig. 12) at Mauritius only, where it is rather scarce; the Museum also possesses specimens of var. *margariticola*, Brod. (Conch. Icon., fig. 28) from the N. Coast of Australia: this form differs from var. *Indica* by the fewer, more nodulous ribs, becoming more rapidly obsolete, by its stouter and thicker growth, by the more regular transverse sculpture, and by its more sombre colouration.

CONUS CEYLONENSIS, Brug.

As already surmised by v. Martens (Don. Bism., p. 32), Pease is wrong (Am. J. Conch., 1867, p. 126) in uniting *Conus Ceylonensis*, Brug. with *Conus pusillus*, Ch. (Conch. Icon. fig. 154); both are abundant species at low water on the reefs at Ceylon and the Andamans; the latter species we have also found at Mauritius and the Seychelle Islands. Not only, how-

ever, the shells, but the animals also are quite distinct; the latter in *Conus Ceylonensis* being a bright scarlet throughout, the body minutely, almost imperceptibly streaked with white, the siphon the same, only much more distinctly so; the animal of *Conus pusillus* is, on the other hand, pure white, with a narrow pink rim round the extremity of the siphon and at its base, and the posterior end of the body is also tinged with pink.

DRILLIA LUCIDA, n. sp., Pl. VIII, Fig. 15.

Shell acuminately fusiform, very smooth and glittering; white, slightly and irregularly marbled with pale brown here and there between the ribs and especially behind the outer lip; suture distinct, apex blunt and rounded, almost like that of *Pyramidella* in character; whorls 8 to 9, the two first smooth and embryonal, the others divided with a deeply incised groove beneath the suture, longitudinally, thickly, distantly ribbed; last whorl with 9 ribs, transversely striated at its base, gibbous posteriorly, with a rather considerable smooth space behind the marginal varix (as in Reeve's fig. 199, *Pleur. pudica*, Hinds), next the suture the upper part of the ribs, cut off by the deep spiral groove, have the appearance of a row of granules; columella and aperture smooth, a callous tubercle at junction of outer lip with the former, sinus very deeply excavated.

Long 8, diam. 3 mil.

H. and A. Adams in their 'Genera of Recent Mollusca' class *Clavatula quisqualis* of Hinds as a *Clathurella*; it would, however, probably be better placed in *Drillia*, as is done with other allied spp. *robusta*, Hinds, &c. *D. lucida* resembles extremely closely the shell from South America figured and described by Hinds as *Clavatula quisqualis* (Voy. Sulph., pl. VI, fig. 5); the Indian species is smaller, with transverse striæ at base of the last whorl, with a row of granules and a deep groove beneath the suture, and with straight instead of oblique ribs. The type is from the Persian Gulf, where it was dredged rather plentifully by Mr. Blanford off Tumb Island and Gwádar; it was also dredged by Mr. Wood-Mason at the Andamans and found by the late Mr. Raban at Pooree in the Bay of Bengal; the specimens from the two last-named localities differ slightly from the type form, being a little more richly marbled with brown (much as in Hinds' figure of his *Clavatula læta*), and having the ribs on the last whorl a trifle more rounded and the penultimate rib in the centre of the back more developed than the others (presenting a varicose appearance).

DRILLIA ACUMINATA, Migh., Pl. VIII, Fig. 14.

P. Bost. Soc., 1845.

Shell fusiform, resembling in shape many small species of *Mitra*, somewhat smooth and shining, apex sharp and pointed (generally broken off);

bright brown, with a broad white band at the upper part of the whorls, repeated near base of the last whorl, this white band is more vivid and distinct on the ribs than in the interstices; whorls 8, the three first without sculpture, the others longitudinally flexuously ribbed, with a depression beneath the suture, last whorl transversely ribbed at its base, with approximately 12 longitudinal ribs, two of which in the centre of the back are joined together and have a varicose or gibbous appearance; columella and interior of aperture brown, smooth, outer lip sharp, very thin, sinus small.

Long. max.  $6\frac{1}{4}$ , diam. max.  $2\frac{1}{3}$  mil.

Andaman I. and Ceylon, scarce at both places. We have given a fresh figure of this species from an Andaman specimen, as the figure in the Don. Bism. (pl. 1, fig. 1) is scarcely sufficient for satisfactory identification. Typical specimens in the Indian Museum from the Sandwich Islands in no respect differ from Indian Ocean ones.

*MANGELIA FULVOCINCTA*, n. sp., Pl. VII, Fig. 1.

Shell attenuately fusiform, shining; whorls nine, the first four embryonal and colourless, the third and fourth peculiarly and strongly carinate, the other five longitudinally, varicosely ribbed, seven ribs on the last whorl; under a lens, minutely but regularly transversely striated, striæ more or less obsolete on the ribs; white, with a chestnut-brown band immediately under the suture, more vivid in the interstices than on the ribs themselves, this brown band covers the columella and nearly the whole of the lower half of the last whorl, is also very strongly marked on the lower portion of the outer lip and within the aperture; columella and outer lip smooth, sinus obsolete, canal very short and truncate.

Long. 8, diam. 3 mil.

Type Bombay (Rev. S. B. Fairbank), also Ceylon (nobis), and Pooree (H. H. Raban).

(Coll. Indian Museum and H. Nevill.)

*MANGELIA FAIRBANKI*, n. sp., Pl. VII, Fig. 2.

We have long hesitated whether this shell should be distinguished from Reeve's *Pl. hexagonalis*, the differences between our shell and the figure in the Conch. Icon. seem however to necessitate it. *M. Fairbanki* can be distinguished by the more open canal, the five or six denticulations within the acute outer lip, the sharp transverse striæ, equally and strongly showing both on the ribs and in the interstices, the striæ distant from one another, only three on each whorl, the middle one slightly the largest, imparting a somewhat angulate appearance to the whorls; the longitudinal ribs are thicker and more rounded than in Reeve's figure; the shell has 8 whorls, the two first embryonal, slightly mammillate;

it is of an irregular leaden-brown colour, stained with a darker shade on the outer lip and on the columella.

Long. 6, diam. 2 mil.

Type Bombay, probably also Ceylon and Andamans; the specimens, however, from these two last localities are not sufficiently perfect for satisfactory identification. For the type specimens of this and for many other interesting species from the same locality, the late Dr. Stoliczka was indebted to the Rev. S. B. Fairbank.

MANGELIA (?) INTERRUPTA, Rv.

P. Z. S. 1846.

*Daphnella bella*, Pse.

*Pl. gemmulata*, D.

Amongst some hundred specimens in the Museum from the Sandwich I., Mauritius, Bourbon, Ceylon, and Abyssinia, a single Ceylon specimen alone shows minute denticulations just within the outer lip, as in Reeve's figure. A comparison with specimens in the British Museum marked *interrupta*, Rv. first enabled us to identify this species; the genus still seems to us doubtful, perhaps Carpenter (P. Z. S. 1865) is correct in placing it in the *Columbellidæ*. It is common in Ceylon, where it seems to be finer and better marked than elsewhere in these seas. If it should prove to be a pleurotomid, Pease's name *bella* had probably better be employed, as Lamarek and Sowerby have both described distinct shells as *Pleurotoma interrupta*.

CLATHURELLA RUGOSA, Migh.

*Pl. curculio*, Nevill, J. R. A. S. (Ceylon Branch), 1869.

Pease is quite wrong (Am. J. Conch. 1871, p. 25) in uniting this species with *C. scalarina*, Deshayes; the short rounded whorls, more produced spire, different character of the sculpture, absence of the second black transverse line on the whorls, amply distinguishing the latter; the former is abundant at Ceylon and Arakan, the latter at Mauritius, Bourbon, and Ceylon.

C. RUGOSA, var. CURCULIO, nobis, l. c., from Ceylon.

This variety has 12 longitudinal ribs on the last whorl, four transverse keels on the whorls, the two middle ones very prominent, the other two more or less obsolete, suture excavated, only very faintly stained brown, minutely and spirally striated; two transverse brown lines on the last whorl, showing also within the aperture; it does not differ from the type form sent us by Mr. Pease from the Sandwich I., as figured and described in the Don. Bism., except by its greater size.

Long. 8, diam.  $3\frac{3}{4}$  mil. (last whorl, long.  $4\frac{3}{4}$ ).



## C. RUGOSA, var. FALLAX, nobis.

This is probably the form that induced Pease incorrectly to make *scalarina* a synonym of *rugosa*. This dwarf variety has 9 longitudinal ribs on the last whorl, the four transverse keels are less unequal in size, there is only one brown line on the last whorl and within the aperture (in this respect only does it agree with *scalarina*); the peculiar straight outer lip and consequently contracted aperture, as also the form of the whorls and suture, are the same as in the type form.

Long.  $4\frac{1}{2}$ , diam. 2 mil. (last whorl, long. 2).

Common at Mauritius and Bourbon; rare at Ceylon.

## CLATHURELLA SCALARINA, Desh.

Specimens in the Museum agree exactly with the typical figure (especially as regards the rounded outer lip and open aperture); suture scarcely excavated, spirally minutely striated, six transverse keels on each whorl (the first and last somewhat indistinct), 12 longitudinal ribs on the last whorl (not 15 to 16 as in the original description); apex and suture stained an intense brown, only one brown line on the last whorl and within the aperture.

Long. 6, diam.  $2\frac{1}{4}$  mil. (last whorl, long.  $2\frac{1}{2}$ ).

Abundant at Balapiti in Ceylon; rare at Mauritius.

## CLATHURELLA EXQUISITA, n. sp.

We found this shell marked in the British Museum as *Clathurella nebulosa*, Pease, but it differs totally from the shell described under that name (P. Z. S., 1860, p. 143), being of a beautiful pink colour with a white transverse band, not white with interrupted longitudinal brown lines as in Pease's description of *P. nebulosa*; it may rather prove to be a small variety of the shell described and figured by Pease from Paumotus (Am. J. Conch., 1868, p. 219) as *Clathurella canaliculata*; however, even if it should prove so, our name *exquisita* will stand for the species, as Reeve described a totally different shell as *P. (Clathurella) canaliculata*, P. Z. S., 1848; if the Paumotus shell proves to be distinct from our Mauritius one, as we think it is, we would suggest for the former the name of *Clathurella Peasei*. *C. exquisita* differs from *C. Peasei* by the absence of the dark brown line beneath the transverse white band, by its suture not being coloured brown, by the much greater contraction of the last whorl and the outer lip at their base, thus making a more prominent canal, by the last whorl having only 12 longitudinal ribs instead of 14, finally by its smaller size. We have not thought it necessary to figure this species, as it is one that cannot be mistaken.

Long.  $9\frac{3}{4}$ , diam. 4 mil.

Rather scarce at Mauritius.

## CLATHURELLA REEVEANA, Desh.

Seems to be the same as a shell figured and described by Pease as *C. tumida* (Am. J. Conch. 1867). This species occurs at Mauritius and at the Andamans, at both of which places it is scarce. *C. Reeveana* and *C. cyclophora*, D. should, we think, form a distinct section of Clathurella, in which should probably be classed *P. subula*, *ægrotæ*, &c. of Reeve; in Adams' 'Genera' these latter are recorded as *Daphnella*.

*C. cyclophora* we found at Mauritius rather sparingly, also at Aden a single specimen of a shell which seems to belong to it, though in too bad a state of preservation for certain identification.

## CLATHURELLA SMITHI, n. sp., Pl. VIII, Fig. 13.

Shell minute, angularly fusiform, attenuated, apex round, slightly sinistral; white, tinged with pale brown on the columella and outer lip; whorls seven, acutely angled in the centre, depressedly excavated on the upper half, which is devoid of sculpture; the first two whorls altogether without sculpture, the 3rd and 4th simply acutely keeled in the centre, the others closely reticulated, minute granules formed where the keels bisect one another, longitudinal keels obsolete on the lower half of the last whorl; in some specimens a prominent keel is present immediately beneath the suture of the last two whorls, in most, however, this is obsolete (as in the specimen figured); columella rather strongly twisted, sinus deep, outer lip reflected, transversely striated.

Long.  $3\frac{1}{2}$ , diam.  $1\frac{1}{3}$  mil.

Mr. Blanford dredged 30—40 specimens of this minute shell off Gwádar and Tumb Island in the Persian Gulf; it perhaps nearest resembles Reeve's *Pl. concentricostata* (fig. 279), but is quite distinct; we have named it after Mr. E. A. Smith of the British Museum, who has lately described some interesting small shells from the Persian Gulf.

## CLATHURELLA APICULATA, Montr., Pl. VII, Fig. 3.

J. de Conch. 1864, p. 264, (*N. Caled.*)

We propose to distinguish the Andaman form under the name of var. *minor*. Ten specimens of this variety were found living at Ross Island under blocks of coral at low water, it can only be distinguished from the type form, which has not yet been found at the Andamans, by its smaller size (long.  $4\frac{1}{2}$ , diam.  $1\frac{3}{4}$  mil.). The row of opaque, white spots on the back of the last whorl are very characteristic. It is nearest allied to the next species, *C. Malleti*, which also lives at the Andamans and under precisely similar conditions: the slight but constant differences in shape and sculpture between the two are well shown in the accompanying figures. Dead specimens of *C. apiculata* are fairly abundant in Ceylon, in size closely approximating to the type form (long.  $6\frac{1}{2}$ , diam. 3 mil.)

(Coll. Indian Mus., Rev. J. Warneford, and H. Nevill.)

## CLATHURELLA MALLETI, Recl., Pl. VII, Fig. 4.

J. de Conch. 1852, p. 254, (*Pacific O.*)

I found seven or eight specimens of this lovely species alive at the Andamans, at Ross Island and North Bay, under blocks of coral at low water; the shell is of the most brilliant purple imaginable; it agrees exactly with the original figure and description. (G. Nevill.)

(Coll. Indian Mus. and Rev. J. Warneford.)

## CLATHURELLA PERPLEXA, n. sp., Pl. VII, Fig. 5.

This shell, though in many respects so like *Mangelia Fairbanki*, should probably be classed as a *Clathurella*; whorls 8, the last very short, three first embryonal, the others broadly, somewhat indistinctly longitudinally ribbed, ribs not so straight as in *M. Fairbanki*, but somewhat rounded, especially on the last whorl, three raised transverse striæ on the lower portion of each whorl, the uppermost one almost obsolete, a characteristic raised transverse keel immediately below the suture; uniform ash-color, a shade or two darker in the interstices of the ribs and near the apex; columella, outer margin of the lip and interior of the aperture bright chestnut-brown, columella a little twisted, outer lip very sharp, irregularly undulating, obsoletely granulated just within the aperture.

Long. 6, diam.  $2\frac{1}{2}$  mil.

Type Bombay; also found in Ceylon.

(Coll. Indian Museum, and H. Nevill.)

## CLATHURELLA NIGROCINCTA, Montr., Pl. VII, Fig. 6.

J. de Conch. 1872, (*N. Caled.*)

The colouration of the last whorl is remarkable: there are five rows of distant elongated nodules, of which the two first rows next the suture are of a leaden colour on a broad black band, the third row of a brilliant orange, the fourth and fifth pure white, these five rows of nodules (coloured in the same way) are then repeated.

About twenty living specimens of this shell were found at the Andamans, on Blair's Reef, Aberdeen, and Ross Island, under blocks of coral at low water.

Long. 9, diam. 4 mil.

## CLATHURELLA SINGULARIS, n. sp., Pl. VII, Fig. 10.

Shell elongate, fusiform, sub-conical, apex pointed; white, in the centre of the ribs on the last whorl ornamented with obsolete brown spots; whorls nine, the first four embryonal, smooth, on the fourth traces of convex sculpture only, the last five transversely, regularly, rather broadly, somewhat distantly striated, longitudinally faintly and obtusely ribbed, nine ribs on the last whorl, becoming obsolete towards the base, the last rib next the



outer lip varicose, much more strongly developed than the others; ribs of the 5th and 6th whorls perfectly straight, on the 7th and 8th angulated about the middle, the last whorl angulated at about the 4th or 5th of the transverse striæ; columella straight, smooth, a small tooth-like projection at the commencement of the deep, rounded sinus; outer margin of the lip almost straight, much produced, exceedingly sharp; interior of aperture white, smooth, and shining; under a powerful lens only can be seen a microscopical, regular, longitudinal striation, these striæ are bent in the same way as the last varicose rib and should perhaps be called striæ of growth, they are a trifle more distinct close to the suture.

Long.  $8\frac{1}{2}$ , diam.  $3\frac{1}{2}$  mil.

(Coll. Indian Mus. and Rev. J. Warneford.)

Three or four specimens only of this interesting species were dredged by Mr. Wood-Mason at a considerable depth at the Andamans. In shape and sculpture it resembles most closely *Cythara Delacouriana* of Crosse (J. de Conch. 1872, pl. fig. ); the columella and outer margin are, however, both perfectly smooth and the sinus is much more distinct, the spire too is a great deal longer in proportion to the last whorl, in length the last whorl (measured at the back) is  $4\frac{1}{2}$  mil., the other whorls altogether only measuring 4 mil. We have felt considerable doubt whether this species is correctly classed as a Clathurella; perhaps it would be better placed with Mangelia.

#### CLATHURELLA MASONI, n. sp., Pl. VII, Fig. 7.

Shell ovately fusiform, white, remarkably scalariform; six angular whorls, broader at the top than at their base, the first two rounded, smooth and embryonal, the others prominently and regularly, somewhat distantly, transversely striated (four striæ on the 4th and 5th whorls), longitudinally strongly ribbed, ribs pointed and very prominent at their commencement, nine of them on the last whorl; columella and aperture smooth, with a row of regular, rounded granules just within the acute margin of the outer lip, this latter is very broadly reflected and has a longitudinal, somewhat obsolete rib down its centre, this being decussated by seven transverse striæ presents the appearance of a double row of granules; the outer margin where it joins the body whorl is callous and thickened, the sinus very deep and rounded, the aperture small, contracted, as nearly as possible of equal width all the way down from the sinus to the end of the canal. This species agrees remarkably, as regards sculpture and shape of the whorls, with a shell described as *Pl. scalata* by Souverbie (J. de Conch., 1874, pl. VIII, fig. 4); it differs, however, by the totally different character of the aperture and by its fewer whorls.

Long. 4, diam. 2 mil.

Dredged by Mr. Wood-Mason at the Andamans.



## CLATHURELLA MARTENSI, n. sp., Pl. VII, Fig. 8.

Shell regularly and conically fusiform, of rather dark brown colour with bright lilac granules; seven rounded whorls, reticulated with very thick somewhat distant ridges, forming at the points of intersection, three rows of large, pearl-like, slightly oblong granules, on the last whorl these three rows of granules are repeated, after the sixth row the shell abruptly becomes contracted, forming an excavated furrow, near the base there are again six rows of granules, but much smaller and more rounded, these give a somewhat angular appearance to the last whorl; the columella is much contorted, or twisted in the middle, of a lilac colour, with a few minute denticulations at its edge; the aperture and the four strong denticulations at its outer edge are also of a lilac colour, the sinus is deep and rounded, the outer lip is bright brown, abruptly contracted near its base, forming a strongly marked canal.

Long. 5, diam. 2 mil.

Tolerably abundant in sand from Balapiti in Ceylon.

(Coll. Indian Mus. and H. Nevill.)

## CLATHURELLA ENGINÆFORMIS, n. sp., Pl. VII, Fig. 9.

Shell narrowly elongate, convex, in shape resembling several species of the genus *Engina*, peculiarly attenuated and contracted towards the base, spire pointed; white, banded with a single somewhat irregular yellow band, repeated a little below the middle of the last whorl, some of the granules on this band are yellow, whilst others are white; whorls seven, distantly reticulated with thick, obtuse, longitudinal and transverse keels, the interstices, under a lens, minutely and closely longitudinally striated, the sculpture is very distinct and clearly marked on the last two whorls, but much confused and difficult to trace on the upper ones; as in the preceding species, pearl-like granules are formed where the ridges cross one another, in the present shell however they are more regular in size and more rounded, there are three rows of these granules on each whorl, besides an additional smaller one and some indistinct transverse ridges close to the suture; there are ten longitudinal keels on the last whorl; sinus deep, but rather contracted, bent down rather abruptly; aperture very straight and narrow, suddenly widening a little close to the end of the canal, seven rather large regular granules at the inner margin of the outer lip.

Long.  $5\frac{1}{2}$ , diam.  $2\frac{1}{4}$  mil.

In sand from Balapiti in Ceylon.

(Coll. Indian Museum and H. Nevill.)

## CLATHURELLA LEMNISCATA, Nevill, Pl. VII, Fig. 11.

J. R. A. S. (Ceylon Branch), 1869.

White, with one brown band just below the sutures and with a second one towards the base of the last whorl, the latter fills the excavated furrow and shows also in the interior of the aperture, the columella also is stained brown; whorls seven, distantly latticed with very broad longitudinal and transverse keels, forming oblong granules where they cross one another, there are four of these transverse granulose keels on each whorl, the upper one small and somewhat indistinct, the two middle ones very prominent, the lowest one small, scarcely perceptible, almost hidden by the next whorl; the last whorl has five of these keels, the first smaller than the others, then an excavated furrow as in *Clathurella fusoides*, Reeve, and in *Clathurella Blanfordi*, nobis.

Long.  $6\frac{1}{2}$ , diam.  $2\frac{1}{2}$  mil.

In sand from Ceylon and Mauritius (nobis), Bombay (Rev. S. B. Fairbank), and Gwádar in Persia (W. T. Blanford).

We give a figure, from a Mauritius specimen, of this widely distributed little species.

(Coll. Indian Museum and H. Nevill.)

## CLATHURELLA CONTORTULA, n. sp., Pl. VII, Fig. 12.

Shell globosely conical, somewhat peculiarly twisted or bent, suture distinct; white, with a pink tinge towards the top; apex very obtuse, with a decollated appearance; whorls 6, longitudinally ribbed, ribs thick and prominent, distantly transversely striated, so as to present a granulose appearance; at the base of the last whorl several rows of small granules; columella peculiarly twisted, aperture narrowly contracted, outer lip thick, in the middle bent inwards. This shell seems very close to Reeve's *Pl. obtusa*, the shape however is different, the aperture more contracted, &c.

Long.  $5\frac{1}{2}$ , diam.  $2\frac{1}{2}$  mil.

Abundant in sand from Balapiti in Ceylon.

(Coll. Indian Museum and H. Nevill.)

## CLATHURELLA BLANFORDI, n. sp., Pl. VII, Fig. 14.

Shell cylindrically ovate, elongate, sutures rather indistinct, apex sharp and pointed, a beautiful deep mauve colour throughout; whorls 7 to 8, longitudinally and transversely ribbed, ribs very prominent, of equal thickness, forming granules at the points of intersection, towards the base of the last whorl an excavated furrow as in our *C. lemniscata*, &c.; columella short and twisted, aperture moderately wide, contorted, with a rather large sinus, outer lip thickened with two or three granules just within the aperture.

Long.  $5\frac{3}{4}$ , diam.  $2\frac{1}{8}$  mil.

In sand from Annesley Bay in Abyssinia. I have named this prettily coloured little shell after Mr. W. T. Blanford, to whom the Indian Museum is indebted for it, as well as for very many other interesting species from the same locality.

*CLATHURELLA ARMSTRONGI*, n. sp., Pl. VII, Fig. 13.

Shell pyramidically elongate, angular in the middle of the whorls, very pointed at base, suture distinct, apex very sharp and pointed; colour uniform chocolate-brown; whorls eight, the first two perfectly smooth, the 3rd and 4th with two transverse keels in the centre, the last four obtusely and distantly longitudinally ribbed, transversely regularly striated; columella much contorted or twisted, with a shining callosity which is prominently rugosely granulated as in the genus *Cythara*; aperture short and much contorted, with a large, prominent, tooth-like tubercle at the junction of the outer lip with the columella and with a remarkably wide, deeply excavated sinus; outer lip thickened, transversely striated, peculiarly and minutely, very closely granulated just within the aperture; in three of the four specimens the columella and margin of the outer lip are stained a brighter brown than the rest of the shell. The above characters will serve easily to distinguish this shell from *Pl. arcata* of Reeve, the only species which, as far as we know, it at all resembles.

Long. 5, diam.  $2\frac{1}{4}$  mil.

The type was dredged by Mr. Wood-Mason at the Andamans in 25 fths. Dr. Armstrong of the Indian Coast Survey has also presented to the Indian Museum three specimens, which he dredged at about the same depth in the Paumben Straits, in these latter the columella and outer lip are stained a bright brown, but there is no other difference from the type form.

*CYTHARA GRADATA*, n. sp., Pl. VII, Fig. 15.

Shell compressedly, ovately oblong; sutures excavated, apex very obtuse, having a decollated appearance, pure white throughout; whorls six, longitudinally ribbed, ribs continued to the extreme base of the last whorl, transversely very regularly striated, columella almost straight, slightly rugose at its upper part; aperture narrowly contracted, especially towards its base, sinus small; outer lip very thick, regularly rounded, granulated just within the aperture.

Long.  $5\frac{1}{2}$ , diam. 2 mil.

Not uncommon in sand from Balapiti in Ceylon (nobis) and Bombay (Rev. S. B. Fairbank).

(Coll. Indian Museum and H. Nevill.)

*CYTHARA DUBIOSA*, n. sp., Pl. VII, Fig. 18.

We have felt considerable doubt whether the present species is really distinct from the shell described by Reeve as *Mangelia coniformis*, Gray

MS., the greater thickness of shell, straighter outer lip, and less oblique longitudinal ribs seem, however, to distinguish the present form. Shell ovately conical, thick, apex mammillate; white, with a broad brown stain on the back of the last whorls; whorls 7, the first three embryonal, the next three angular, the longitudinal ribs only beginning towards the base of each of them, give the appearance of a row of nodules just above the suture; the last whorl unusually straight and regular, with an excavated shelf at the top, transversely and closely striated, striæ somewhat obscure, peculiarly undulating and interrupted, decussated with somewhat indistinct longitudinal almost straight ribs, commencing at the base of the excavated shelf; regularly and closely denticulated both on the rather widely spreading callosity covering the columella and also just within the margin of the straight outer lip; aperture contracted, much straighter and narrower than in Reeve's figure of *coniformis*.

Long.  $7\frac{1}{2}$ , diam. 4 mil.

Apparently very scarce, four specimens in sand from Mauritius and one from Port Blair, Andamans.

CYTHARA ISSELI, n. sp., Pl. VII, Fig. 17.

Shell thick, ovately conical, suture very distinct, apex pointed; white, with an orange band in the middle of the whorls, the band repeated on the last whorl, this band is distinct on the longitudinal ribs, but only here and there traceable in their interstices; whorls seven, the first three embryonal (in dead specimens nearly always wanting), the others longitudinally concentrically ribbed, ribs very thick, throughout closely transversely striated; columella nearly straight with a moderate sized callosity, closely covered with distinct granules and transverse rugosities; aperture narrow, widening somewhat abruptly near the base, sinus moderate, outer lip thickly reflected, transversely striated, slightly rounded, a row of large, regular granules just within the aperture.

Long.  $7\frac{3}{4}$ , diam. 4 mil. (decollated specimen of four whorls only).

Common in sand from Balapiti, Ceylon.

I have named this shell after M. Issel of Genoa, whose works on the shells of the Red Sea, Persia, and Borneo, afford most valuable aid in determining our Indian Ocean shells.

(Coll. Indian Museum, Rev. J. Warneford, M. Issel and H. Nevill.)

CYTHARA ISSELI, var. CERNICA, (? sp. nov.), Pl. VII, Fig. 16.

Considerably smaller than the type form, the entire, full grown figured specimen being only  $6\frac{1}{2}$  in length and  $2\frac{3}{4}$  mil. in breadth; there is apparently no other difference, except that the sinus is a trifle less distinct, and the aperture a little straighter.

Mauritius,—rare.



## MARGINELLA (GLABELLA) PICTURATA, Nevill, Pl. VIII, Figs. 8—9.

J. A. S. B. 1874, p. 23.

We have nothing to add to our description of this pretty little shell, which would appear to be very local, as we have only seen specimens from the Mauritius.

## MARGINELLA (VOLVARINA) INCONSPICUA, Nevill, Pl. VIII, Figs. 10—11.

J. A. S. B., 1874, p. 23.

The Museum is indebted to the Rev. S. B. Fairbank for specimens of this species from Bombay; the type is from Mauritius, where it is tolerably abundant.

## MARGINELLA (VOLVARINA) DEFORMIS, Nevill, Pl. VIII, Fig. 12.

J. A. S. B., 1874, p. 23.

This appears to be a very rare shell, three or four specimens, all from Ceylon, being the only ones we have ever seen.

## MARGINELLA ISSELI, n. sp.

We propose to change to *Marginella Isseli* the name of a shell called *M. pygmæa* by Issel (*Malac. del Mar Rosso*, p. 216), there being already a species of that name described by Sowerby in 1846. This minute species was dredged abundantly by Mr. W. T. Blandford off the coast of Persia in 25 fms.

## NASSA OBESA, n. sp., Pl. VIII, Figs. 2—3.

Shell thick, stout, globosely conical, smooth and shining, spire very pointed, apex acute; brown, indistinctly and minutely mottled with white, irregularly stained near the suture with a darker shade of brown, the colouration agrees perfectly with Reeve's fig. 6 (*mutabilis*, L., from the Mediterranean); whorls 10, the three first without sculpture, very small, the others longitudinally, obliquely thickly ribbed; the ribs and their interstices are of about equal thickness, the former are almost, or altogether, obsolete on the back of the last whorl, four or five, however, are always present close to the callous rib behind the outer lip; transversely somewhat distantly grooved, the grooves towards the base of the last whorl and the two or three upper ones more deeply incised than the others and forming two rows of more or less granulose ridges immediately beneath the suture; columella with a moderately large white callosity, slightly rugose, aperture ridged near its margin.

Long. max. (wanting the three first embryonal whorls) 22, diam. max. 14 mil.

Kutch,—rare. Major Godwin-Austen has been good enough to compare this species for us with the British Museum and Mr. Hanley's collections: he

confirms our opinion that it appears to be new, the nearest he could find being Reeve's *algida* (Conch. Icon., fig. 145), from Moreton Bay, Australia; the present species bears a remarkable resemblance in many respects to *N. mutabilis*, its thickness, different sculpture, rugose columella, &c. will, however, distinguish it. At Ceylon and Penang we have found a variety which approaches nearer to *N. algida* than the figured type form from Kutch.

*N. OBESA*, nobis, var. *CEYLONICA*.

More acuminate, less globose, suture more distinct; longitudinal ribs on the antepenultimate whorl more or less obsolete, transverse grooves on the last two whorls almost obsolete; callosity on the columella a shade more defined and less rugose.

Long. (perfect specimen) 19, diam. 10 mil.

Ceylon and Penang.

(Coll. Indian Museum and H. Nevill.)

*NASSA PERSICA*, v. Mart.

*Deshayesiana*, Iss.

A common shell both at Aden and the Andaman Islands. It is admirably described and figured in a most interesting and important paper by von Martens, published as a separate part of the 'Nov. Conchol.' under the title of 'Ueber vorderasiatische Conchylien.'

*COLUMBELLA PARDALINA*, Lam.

This most variable species abounds on the reefs at the Andamans, where one of us collected many hundreds of specimens in all stages of growth. Pure white specimens, exactly agreeing with Soubervie's figure, were abundant, another very similar variety also occurs, white with a broad pale yellow band round the last whorl (with or without a few yellow spots on the spire); specimens marked like Reeve's fig. 75 A. and C. are also common, but considerably smaller and more compressed: this last variety may be called *Andamanica*.

Typical form, very common in Ceylon, long.  $16\frac{1}{2}$ , diam. 9 mil.

Var. *lactescens*, Souv., J. de Conch. 1866, long. 13, diam. 7 mil.

Var. *Andamanica*, long. max.  $12\frac{3}{4}$ , min. 10, diam. max.  $6\frac{1}{2}$  min.  $4\frac{1}{4}$  mil.

*COLUMBELLA (MITRELLA) BALTEATA*, n. sp., Pl. VIII, Fig. 4.

Shell small, elongately fusiform, spire about the same length as the last whorl, apex pointed, of a bright red colour; light reddish brown, a single belt of dark red in the middle of the whorls between the ribs, the ribs themselves in their centre are indistinctly white spotted; whorls 7, the upper ones smooth, the others longitudinally ribbed, ribs obsolete near the suture;

transversely indistinctly striated, a groove below the suture of the upper whorls, becoming obsolete near the last whorl; columella simple and twisted, outer lip acute, slightly emarginate at the top, aperture striated within.

Long. 5, diam.  $1\frac{1}{2}$  mil.

Mauritius. Not common.

*ZAFRA POLITA*, n. sp., Pl. VIII, Fig. 5.

Shell small, slenderly fusiform, attenuated at both ends, perfectly smooth, glistening spire contorted, nearly but not quite as long as the last whorl; white, with two bands of irregular opaque white flakes on each whorl (four on the last); whorls 6 (the figured specimen has had the first broken off), the last striated at its base, outer lip remarkably thick and bent inwards, making the aperture peculiarly contracted.

Long.  $3\frac{1}{2}$ , diam.  $1\frac{1}{2}$  mil.

Mauritius,—rather scarce.

Easily distinguished by the absence of sculpture and by its remarkably contracted aperture from its nearest ally, *Z. ornata*, Pease. *Z. purpurea*, H. Ad. from New Hebrides is also found at Mauritius.

*ZAFRA SEMISCULPTA*, n. sp., Pl. VIII, Figs. 6—7.

Shell narrowly lanceolate, turreted, spire a little longer than the last whorl, apex pointed; horny-brown throughout; whorls 7, the three first without sculpture, the rest longitudinally thickly ribbed, ribs about twice as broad as their interstices (in this respect our figures are slightly at fault), obsolete on the back of the last whorl, which is transversely striated at its base; a sharply defined callosity covers the columella, outer lip scarcely thickened or reflected, not as long as the columella, slightly emarginate at junction with the last whorl; aperture narrow and contracted, as wide at the top as at the base.

Long. 3, diam. 1 mil.

This species was dredged by Mr. Blanford at Cape Negrais, off the coast of Burma.

*SISTRUM VENTRICOSULUM*, n. sp., Pl. VIII, Fig. 16.

Shell small, ovately ventricose, very gibbous in the middle, thick, solid, abruptly attenuated at base; spire short, acutely pointed, about half the length of the last whorl; white, here and there stained with pale brown; whorls 7, the first four very small, embryonal, without sculpture, the next has two rows of unequal granules, the lower row somewhat pointed and much the larger; the last whorl widely excavated at the suture, with a row of prominent granules, rounded beneath with distant, somewhat indistinct longitudinal ribs, transversely rather distantly keeled, forming slightly pointed granules where they intersect the ribs, the interstices under a lens very mi-

nutely and closely longitudinally striated; columella with a moderately spread callosity, which is slightly rugose; canal long, not recurved; four denticulations within the aperture, the two upper ones very thick and prominent, outer lip much thickened, slightly emarginate at the upper part.

Long.  $5\frac{3}{4}$ , diam.  $3\frac{1}{2}$  mil.

Ceylon — Rare.

This is the smallest species of the genus as yet described.

*EULIMA ACUFORMIS*, n. sp., Pl. VIII, Fig. 1.

Shell very elongate, sharply pointed, white and shining, solid, flexuous; whorls 17, cylindrical, slightly angulate at their base, except the last whorl which is short and rounded; no impressed line at the suture, varices obliquely continuous; aperture oblong, slightly produced in front, rounded at base; columella reflected, outer lip scarcely thickened.

Long. 10, diam.  $2\frac{3}{4}$  mil.

Dredged at the Andaman Islands by Mr. Wood-Mason.

Rare. The above character will easily distinguish this graceful shell from its nearest allies, *E. lactea* and *flexuosa*, A. Ad.

(Coll. Indian Museum and Rev. J. Warneford.)

*EULIMA (ARCUELLA) MIRIFICA*, Nevill.

J. A. S. B. 1874, (*Mauritius*).

We have lately noticed that H. and A. Adams described a genus under the name of *Bacula*, allied to *Eulima*, (in A. & M. N. H., 1863, Vol. XI, p. 18) founded on a species from China, which they called *striolata*; this shell probably belongs to the same genus as the species from Mauritius, which we described as above; in either case our name for the genus, or sub-genus, will stand, there being a genus *Baculum* described prior to 1863.

*MITRA (TURRICULA) CRUENTATA*, Ch.

Fig. 1438-9, from the *E. Indies*.

Typical specimens, as admirably figured by Chemnitz, are found at the Nicobars (probably the locality whence the type came) and Andamans; they have two white bands on the last whorl, with 10 to 11 distant, flexuous ribs, nodosely angled at the upper part; the transverse grooves rugose, approximately equally incised, forming tolerably regular and oblong granules where they intersect the ribs.

Long.  $19\frac{1}{2}$ , diam. 8 mil.

*M. CRUENTATA*, Ch. var. *PROXIMA*.

This is the shell from the Philippines figured by Reeve (fig. 126) for *cruentata*, Ch.; it is a form which is often mistaken for Reeve's *M. armillata*; it has 16 ribs on the last whorl, is a trifle less flexuous, and less prominently



angled at the upper part than the type form; the transverse grooves and double white band are similar.

Common at the Andaman I.

Long. 19, diam.  $6\frac{3}{4}$  mil.

*M. CRUENTATA*, Ch. var. *SANDVICHENSIS*.

Extremely close to the preceding is the form from Ascension I. (Pacific O.) sent to us by Mr. Pease as "*M. armillata* (?) perhaps *cruentata*, Ch." This variety is recorded in the 'Donum Bismarckianum' as *armillata*, Rv.; from which it differs by the less flexuous ribs and different shape of the whorls, being nearer Reeve's *amanda*; it seems to us to be best classed as a variety of *cruentata*, Ch.: the whorls are not angulate near the suture, the transverse grooves are nowhere rugose but are more or less obsolete in the centre of the last whorl; a groove at the upper part being more deeply incised than the others (in this respect it agrees with *armillata*), gives the appearance of a row of prominent, bisected tubercles just below the suture; there are 21 ribs on the last whorl, which are only very slightly flexuous, it has a single white band only.

Long.  $5\frac{2}{3}$ , diam. 6 mil.

*M. CRUENTATA*, Ch., var. *AMANDA*, Rv.

Reeve's *M. amanda*, (fig. 318) from the Philippines is only a variety of this protean species. Specimens dredged abundantly by Dr. Stoliczka at Singapore agree exactly with Reeve's typical figure and description. It differs from *cruentata* var. *proxima* by the whorls not being angulate, by a deeply incised groove near the suture, forming a row of oblong tubercles next the suture, by the much greater width of the white bands and by the less vivid orange tinge of the ribs, which are 16 to 20 in number; and from *cruentata* var. *Sandvichensis* by the more regular and rugose transverse striation and by the broad double white bands;—it is in fact intermediate between the two.

Long. 13, diam. 5 mil.

Two specimens from Aden, unfortunately not in good condition, apparently belong to this variety, the ribs are, however, more distant. Reeve's *armillata* (fig. 315) from the Philippines, may perhaps prove also to be a variety of *cruentata*, or it may be a variety of *obeliscus*, Rv.; it seems intermediate between the two.

*MITRA* (*TURRICULA*) *OBELISCUS*, Rv. var. *ANDAMANICA*.

PL. VIII, Figs. 19—20.

Shell slenderly fusiform, shining; very dark brown with a single very narrow white band, more distinct on the ribs than in their interstices; whorls 9—10 (as in *M. cruentata* and all its varieties), produced, very slightly

turreted, not angulate at the upper part; 18 flexuous longitudinal ribs on the last whorl, perfectly smooth except near the suture, where they are divided by a groove, interstices transversely regularly grooved; canal short, not recurved, columella and interior of the aperture dark brown.

Long. 14, diam.  $4\frac{3}{4}$  mil.

Dredged by Mr. Wood-Mason at the Andamans.

This shell in many respects resembles Reeve's *M. armillata*; the above characters will, however, easily distinguish it.

MITRA (TURRICULA) RADIUS?, Rv. (an *DÆDALA*, var.?) Pl. VIII. Figs. 17—18.

Shell pyramidically fusiform, pointed, shining; white, with a broad brown band over the lower half of the last whorl and within the aperture, apex brown; whorls 10, turreted, more cylindrical and produced than those of *M. dædala*, Rv. (fig. 281) or *glandiformis*, Rv. (fig. 310); longitudinally flexuously ribbed, ribs slightly thickened near the suture, interstices regularly engraved with transverse striæ; four folds on the columella, the lower one almost obsolete (Reeve gives only two folds to his *M. radius*).

Long.  $13\frac{1}{2}$ , diam.  $4\frac{1}{2}$  mil.

Dredged by Mr. Wood-Mason at the Andamans; rare.

This seems to be doubtfully distinct from *M. dædala* and *glandiformis*, both of which are common shells at the Andamans and at Ceylon; they all appear to run into one another and may prove to be varieties of one and the same species.

MITRA (SCABRICOLA) PRETIOSA, Rv.

P. Z. S. 1846.

*Mitra Antonia*, H. Ad., P. Z. S. 1870, (*Red Sea*).

This species also was lately obtained rather abundantly by Mr. W. T. Blanford in the Gulf of Oman on the coast of Persia, as also was *Turricula (Thala) casta*, H. Ad. (P. Z. S. 1872, p. 9, from the Red Sea) and a new species very closely allied to the latter.

RISSOINA (?) ABNORMIS, n. sp., Pl. VIII, Fig. 23.

Shell small, thick, shortly fusiform, white, suture distinct; apex remarkably abruptly and truncately sinistral, as in the *Pyramidellidæ*; whorls 6, the two first embryonal, without sculpture, the others longitudinally somewhat thickly ribbed (the figured specimen being rather young, the ribs are less developed than in mature specimens), the last whorl rounded, with about 15 ribs, obsolete towards the base; throughout transversely, closely, somewhat rugosely striated, so as to form minute, indistinct granules where the striæ intersect the ribs; columella strongly twisted at base, covered with a moderately widely spread callosity; aperture small, peculiarly

deeply channelled at base, within showing the transverse striation on the back of the last whorl; outer lip produced, rounded, no sign of any emargination at the upper part, much thickened, transversely striated, with a subgranulose appearance, crenulated at the margin.

Long. max. 3, diam. max.  $1\frac{1}{3}$  mil.

Mauritius; not uncommon in sand.

This should probably constitute a distinct sub-genus of *Rissoina*, distinguished by the very distinct canal, twisted columella and sinistral apex; a shell dredged in Japan by A. Adams and distributed by him as "*Lachesis*, n. sp." is a very closely allied species.

#### CYCLOSTREMA EBURNEA, n. sp., Pl. VIII, Figs. 21—22.

Shell depressedly orbicular, thick and callous, ivory white and shining, suture distinct; whorls 5, sharply angled a little below the centre; longitudinally obliquely plicated, ribs very massive, slightly wider than their interstices, obsolete granulated at the angulation; interstices transversely very closely, beautifully and regularly striated, old specimens (as the figured type) are very callous and the transverse striation becomes almost obsolete; a very prominent, thick, transverse, rounded keel at the periphery, sculptured like the whorls;  $\frac{2}{3}$  of the base sculptured as above, the transverse striation being however more distinct, the remaining  $\frac{1}{3}$  round the umbilicus is smooth, the sculpture becoming abruptly obsolete; umbilicus moderate, in old specimens partly covered by the thickened columella, aperture irregularly rounded, margins callous and thickened, slightly reflected over the umbilicus, giving a notched appearance to the columellar margin.

Alt.  $2\frac{1}{4}$ , diam.  $4\frac{3}{4}$  mil.

Pooree, in the Bay of Bengal. Rare.

This handsome species is like no species of the genus as yet described; it perhaps most resembles the West Indian *cancellata* of Marryat, and it is possible that the specimens from the Philippines recorded in the Thesaurus under that name may prove to belong to our species.

#### RINGICULA ACUTA, Phil.

Mal. Zeits. 1849, (*Aden*).

*R. minuta*, H. Ad., (*Suez*).

Both var. *minuta* and the larger typical form are extremely common at Aden, in the Gulf of Oman, and at Gwádar on the coast of Persia, as also at Bombay, Ceylon, and Arakan; an allied form (if not the same) was also obtained by one of us at Natal; the largest adult specimen in the Museum measures long.  $4\frac{1}{2}$ , diam. 3 mil., the smallest long.  $1\frac{3}{4}$ , diam. 1 mil.; there are also numerous full-grown specimens of many intermediate sizes. Curiously enough, Dr. Stoliczka obtained this species at Singapore, but not *R. Caron*, Hinds. Dr. Armstrong has presented to the Museum a single speci-

men lately dredged alive in Paumben Straits in 39 faths., which must apparently be referred to *R. acuta*, though it is thicker and more callous than any of the Persian Gulf specimens and the striation is entirely obsolete; owing to its much thicker texture and more developed teeth, the aperture is much more contracted; other specimens may eventually prove this form to belong to a distinct species.

RINGICULA CARON, Hinds.

Voy. Sulph. 1844, (*Malacca*).

This species also was dredged by Mr. Blanford at Gwádar; it is quite distinct in all its characters from *R. acuta*, the peculiar and very different outer lip, slight development of the parietal tooth, and different texture and striation at once distinguishing it.

RINGICULA APICATA, Nevill.

J. A. S. B., 1871, (*Mauritius*).

Lately found by one of us at the Andamans rather abundantly; it is only distinguishable from *R. acuta*, Phil. var. *minuta*, H. Ad. by its smooth, polished appearance, having only three striæ at the base of the last whorl, instead of being striated throughout as in the other species; it is slightly narrower and more contracted, less callous, with the teeth more sharply developed.

RINGICULA ABBREVIATA, n. sp.

Closely allied to *R. Caron*, Hinds; it has the same regular striation throughout and peculiar corrugated or crenulated outer lip, but has only  $3\frac{1}{2}$  whorls, the spire being strikingly short and truncated in appearance; there is no tooth within the outer lip, the parietal tooth is strongly developed, the callosity is extremely broadly reflected on the lower part of the columella and is rugose and sub-obsolete granulose, there are two teeth on the columella, the lower one of which in some specimens is bifid.

Long. 3 (of which the last whorl alone measures  $2\frac{1}{2}$ ), diam.  $2\frac{1}{2}$  mil.

Balapiti in Ceylon, rather common.

(Coll. Indian Museum and H. Nevill).

TROCHUS (TALLOBIS) ROSEOLA, Nevill.

J. A. S. B., 1869, (*Ceylon*).

*T. (Euchelus) Lamberti*, Souv., J. de C. 1875, (*N. Caled.*)

That M. Souverbie should have overlooked our original description of this remarkable form is unaccountable, the more so that the figure is an excellent one, and that the description, as indeed does the name also, indicates the peculiar colouration of the shell. It may be well to take this opportunity of stating, that we have found in our Indian seas the greater



part of the new marine species described from New Caledonia by M. Crosse and Soubervie; for instance, we had prepared a description of a new *Euchelus* found by one of us alive at extreme low water on a reef at Port Blair, Andaman Islands; on receipt, however, of No. 1 of the Journ. de Conch. for 1875, we found the same species admirably described and figured by M. Soubervie from N. Caledonia, under the name of *Trochus* (*Euchelus*) *fossulatulus*.

TROCHUS SATRAPIUS, v. Mart.

Nov. Conchol. Sup. V, (*Bushire*).

*T. (Clanculus) Tonnerrei*, Nevill, J. A. S. B., 1874, (*Aden*).

The specimen described by v. Martens is considerably bigger than any found by us at Aden; in other respects they seem to be exactly similar; the denticulations at the base of the columella and within the outer lip were not sufficiently marked in our figure, though properly recorded in the description. When we published our species the part of the Nov. Conch. containing the above description had not reached Calcutta.

TROCHUS (GIBBULA) HOLDSWORTHANA, Nevill, var.

J. A. S. B., 1871, (*Ceylon*).

*Minolia variabilis*, H. Ad., P. Z. S., 1873, (*Persia*).

This small variety was dredged tolerably abundantly in the Gulf of Oman by Mr. Blanford. After a close and careful examination we can detect no difference from the type form, except in the considerably smaller size of the Persian Gulf shell; we must, however, state that in this respect we have seen no intermediate specimens. The Museum possesses typical specimens of *G. Holdsworthana* from Penang, as well as from Ceylon.

In a collection of shells, numbering some 600 or 700 species, dredged by Mr. W. T. Blanford off the coast of Persia, and presented by him to the Indian Museum, are specimens of the following interesting shells: a single specimen of a species of our genus *Robinsonia*, perhaps our *R. Ceylonica*; a new species of *Niso* and our *N. pyramidelloides* (the latter was also dredged in the Paumben Straits by Dr. Armstrong); *Rissoina Stoppanii* and *R. Bellardii* of Issel, with ten other species of the genus; *Fossarus Stoliczkanus*, nobis, and three new species of the genus; *Rimula propinqua*, A. Ad.; a new species of *Limaea*, very close to the European species; *Eucharis angulata*, H. Ad. and *Næra pulchella*, H. Ad., &c.

It may perhaps be well to record here that specimens of *Macrochlamys Geoffreyi*, H. Ad. (P. Z. S., 1868, p. 290) are marked in the collection of

the Jardin des Plantes at Paris, as *Helix nulla*, Fér., *H. setiliris*, Bens. as *H. turbida*, Fér., *H. argentea*, Rv. as *delibata*, Fér. (also Beck, p. 31, No. 6, without description) and a variety of the same as *carinifera*, Fér.,—all from Bourbon; *H. stylodon*, Bens. as *depressa*, Fér., from Mauritius; (compare Prod. No. 314) *H. pedina*, Bens. (A. and M. 1862, from Bombay) as *H. vitrinoides*, Desh. (Mag. de Conch. 1830), “collected at Bombay in 1835 by Dussumier”; and *Hyalimax Maillardi*, Fisch. as *Succinea unguicula*, Val., from Bourbon. There are also specimens marked as *H. ochroleuca*, Fér. (loc. ?): an examination of pl. 30, fig. 1, Hist. des Moll., proved beyond doubt that this name was given to the Mauritian shell described Mr. H. Adams (P. Z. S., 1869) from our specimens as *H. rufozonata*; the Bermuda species must, therefore, receive a new name.

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### EXPLANATION OF THE PLATES.

#### Pl. VII.

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| Fig. 1. <i>Mangelia fulvocincta</i> , p. 85.     | Fig. 10. <i>Clathurella singularis</i> , p. 89.    |
| 2. ——— <i>Fairbanki</i> , p. 85.                 | 11. ——— <i>lemniscata</i> , Nev., p. 92.           |
| 3. <i>Clathurella apiculata</i> , Montr., p. 88. | 12. ——— <i>contortula</i> , p. 92.                 |
| 4. ——— <i>Malleti</i> , Recl., p. 89.            | 13. ——— <i>Armstrongi</i> , p. 93.                 |
| 5. ——— <i>perplexa</i> , p. 89.                  | 14. ——— <i>Blanfordi</i> , p. 92.                  |
| 6. ——— <i>nigrocincta</i> , Montr., p. 89.       | 15. <i>Cythara gradata</i> , p. 93.                |
| 7. ——— <i>Masoni</i> , p. 90.                    | 16. — <i>Isseli</i> , var. <i>Cernica</i> , p. 94. |
| 8. ——— <i>Martensi</i> , p. 91.                  | 17. — <i>Isseli</i> , p. 94.                       |
| 9. ——— <i>engineformis</i> , p. 91.              | 18. — <i>dubiosa</i> , p. 93.                      |

#### Pl. VIII.

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| Fig. 1. <i>Eulima acufornis</i> , p. 98.        | Fig. 14. <i>Drillia acuminata</i> , Migh., p. 84.                  |
| 2-3. <i>Nassa obesa</i> , p. 95.                | 15. ——— <i>lucida</i> , p. 84.                                     |
| 4. <i>Mitrella balteata</i> , p. 96.            | 16. <i>Sistrum ventriosulum</i> , Nev., p. 97.                     |
| 5. <i>Zafra polita</i> , 97.                    | 17-18. <i>Turricula radius</i> ?, Rv., p. 100.                     |
| 6-7. — <i>semisculpta</i> , p. 98.              | 19-20. ——— <i>obeliscus</i> , Rv., var. <i>Andamanica</i> , p. 99. |
| 8-9. <i>Marginella picturata</i> , Nev., p. 95. | 21-22. <i>Cyclostrema eburnea</i> , p. 101.                        |
| 10-11. ——— <i>inconspicua</i> , Nev., p. 95.    | 23. <i>Rissoina</i> (?) <i>abnormis</i> , p. 100.                  |
| 12. ——— <i>deformis</i> , Nev., p. 95.          |  |
| 13. <i>Clathurella Smithi</i> , p. 88.          |  |
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